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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,345	09/24/2001	Yukihiro Kusano	Q65935	4619
7590 04/10/2006				
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		EXAMINER		
		TORRES VELAZQUEZ, NORCA LIZ		
		ART UNIT		PAPER NUMBER
		1771		

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

C1

<b>Office Action Summary</b>	<b>Application No.</b> 09/960,345	<b>Applicant(s)</b> KUSANO ET AL.	
	<b>Examiner</b> Norca L. Torres-Velazquez	<b>Art Unit</b> 1771	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 6-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. With regards to Applicant's arguments rebutting the Examiner's remarks with regards to the Declaration under 37 CFR 1.132 filed June 29, 2005 as being insufficient to overcome the rejection of claims 6-9 based upon the 35 U.S.C. 103(a) rejection over JP'010 in view of Yoshikawa et al. '932. It is noted that such Declaration is insufficient to overcome the rejections set forth in the last Office action because:

a. The data provided by Applicants in the Declaration, in which they conclude that the Vibration riding comfort of their invention shows that their invention is superior to Comparative Example I, is not properly explained. The vibration-riding comfort test as explained by Applicants was evaluated based on the driver's feeling and the evaluation was classified in comparison to the control in term of values "0; +2; +4 and +8" in comparison to a control. Based on that explanation it is not clear how Applicants obtained the presented values that range from 129-137. Further, it is noted that the nature of the test performed is very subjective to the individual performing such test and the particular conditions of the vehicle used to perform it. "[A]ppellants have the burden of explaining the data in any declaration they proffer as evidence of non-obviousness." *Ex parte Ishizaka*, 24 USPQ2d 1621, 1624 (Bd. Pat. App. & Inter. 1992).

b. Further, it is noted herein that the evidence relied by Applicants should establish "that the differences in results are in fact unexpected and unobvious and of both statistical and practical significance." *Ex parte Gelles*, 22 USPQ2d 1318, 1319 (Bd. Pat. App. & Inter. 1992) (Mere conclusions in appellants' brief that the claimed polymer had an

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unexpectedly increased impact strength “are not entitled to the weight of conclusions accompanying the evidence, either in the specification or in a declaration.”); Ex parte C, 27 USPQ2d 1492 (Bd. Pat. App. & Inter. 1992) It is the Examiner’s position that the data provided to show unexpected results is limited to an increased Vibration riding comfort test with no showing of significant improvements in the durability or stability which would have been expected given the teachings of enhanced bond by the use of PVD treatment of the nonwoven to adhere the rubber coating of the composite material.

Any differences between the claimed invention and the prior art may be expected to result in some differences in properties. The issue is whether the properties differ to such an extent that the difference is really unexpected. In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Therefore, the rejection of claims 6-9 is maintained herein.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being obvious over JP 10-053010 in view of YOSHIKAWA et al. (US 4,872,932) as stated in previous office action.

The JP 10-053010 reference teaches the use of unwoven fabric (non-woven fabric) in a rubber-filament complex of a fiber reinforced member layer in a pneumatic radial tire. (Abstract) Figure 1 shows a tire structure that includes a fiber reinforcement member layer 8a,

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8b between the carcass layer 2 and sidewall rubber 7a, 7b. [0024] The JP'010 reference uses a conjugation of a non-vulcanized rubber composition for fiber, teaches using solvents and also methods that involve providing a tackiness (adhesive) to the nonwoven fabric. The reference teaches that when adhesion is inadequate, it is sufficient to perform dipping heat-setting processing to a filament fiber like the case where the adhesive power of the fiber cord for tires and rubber is heightened [0022]-[0023]

The JP'010 fails to teach that rubber is adhered to the nonwoven of the reinforcement layer by coating the nonwoven with a metal or metallic compound by PVD or CVD.

YOSHIKAWA et al. discloses a method for preparing rubbery composite materials and teaches that a metal such as zinc, copper, cobalt, and an alloy thereof can be integrated into a rubber composition to form a rubbery composite material exhibiting a firm bond between the components by press bonding the metal at a temperature which approximate to the temperature at which the rubber composition is usually heated for vulcanization; that these material can be readily deposited on a substrate as a thin film by a dry plating process such as vacuum deposition, ion plating, DC and RF magnetron sputtering, bipolar sputtering and RF sputtering processes; and that a rubber composition can firmly bond to the resulting metal thin film. (See Column 3 lines 34-45) The Yoshikawa et al. reference discloses that methods that involve adhesive bonding pose problems including coating consideration such as adherent pretreatment and adhesive maintenance, problems with the use of solvents, among others. (Col. 1, lines 54 through Col. 2, lines 1-54) The reference further teaches that the substrates that can be used in the practice of their invention are not particularly limited with respect to their material type, shape, and size, and that these may be properly selected depending on the intended application.

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(See Column 5, lines 18-41) Further, the reference teaches that the rubbery composite materials of their invention will find wide applications in steel tires, conveyor belts, and hoses, among others. (Column 4, lines 62-64)

Since both references are directed to materials used in the tire industry, the purpose disclosed by '932 would have been recognized in the pertinent art of JP'010.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the reinforcement layer and substitute it with the composite material of '932 in which the nonwoven is treated by PVD to adhere the rubber coating motivated by the desire of improving the adherence of the composite without the need of adhesive material or solvents as taught by the '932 (above).

**4. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

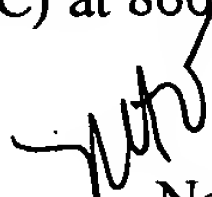
**5.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-

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1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Norca L. Torres-Velazquez  
Primary Examiner  
Art Unit 1771

April 6, 2006